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Generalized Mean Field Theory of Resonant Bose-Fermi Mixtures. DANIELE BORTOLOTTI, Jila/ University of Colorado /LENS, ALEXANDR AVDEENKOV, IPPE, Obninsk, Russia, JOHN BOHN, Jila/ University of Colorado — In the wake of successful experiments in Fermi condensates, experimental attention is broadening to include resonant interactions in degenerate Bose-Fermi mixtures. In order to study the equilibrium properties of the fermionic molecules that can be created in such a mixture, we develop formally, and solve numerically, a mean field theory approach generalized to properly reproduce the two body physics in the low density regime.

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